Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name: Hampshire Chemical Corporation
Mailing Address: 5529 U. S. 60 East
Owensboro, Kentucky 42303

Source Name: Hampshire Chemical Corporation
Mailing Address: 5529 U. S. 60 East
Owensboro, Kentucky 42303

Source Location: 5529 U. S. 60 East, Owensboro

Permit Type: Federally-Enforceable
Review Type: Title V

Permit Number: V-00-004
Log Number: F936
Application Complete Date: February 12, 1999

KYEIS ID #: 077-0920-0155
AFS Plant ID #: 21-059-00155
SIC Code: 2821

Region: Owensboro
County: Daviess

Issuance Date:
Expiration Date:

John E. Hornback, Director
Division for Air Quality

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be complete on February 12, 1999, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

BUTADIENE COPOLYMERS (COPOL)
FRONT-END PROCESS VENTS:

01 (--) Group 1 Process Vents
Stack: (VT-1101-2) Flare

The following equipment/operations are vented to the flare:

1. Caustic Wash Column, Column 29 (Group 1 process vent)
2. Caustic Wash Column, Column 30 (Group 1 process vent)
3. T-32 Washed Butadiene Hold Tank (Group 1 process vent)
4. T-33 Washed Butadiene Hold Tank (Group 1 process vent)
5. T-31 Monomer Mix Tank (Group 1 process vent)
6. T-34 Monomer Mix Tank (Group 1 process vent)

Note: All the Group 1 vents listed above are ducted together and are routed to the Flare via the T-40, Surge Control Vessel. According to 40 CFR 63.482, Definitions, these Group 1 vents (1 through 6) are classified as "Aggregate batch vent stream" (ABVS).

02 (--) Group 2 Process Vents
Stack: (VT-1101-1) COPOL Dilution Blower Vent (Group 2 process vent)

The following equipment/operations are vented to this column:

1. Reactor 50 (Group 2 process vent)
   Construction Date: 6/1/58, Size: 8000 gal
   Foam Buster (Group 2 process vent)
   Condenser (Group 2 process vent)
2. Reactor 51 (Group 2 process vent)
   Construction Date: 6/1/58, Size: 8000 gal
   Foam Buster (Group 2 process vent)
   Condenser (Group 2 process vent)
3. Reactor 53 (Group 2 process vent)
   Construction Date: 6/1/58, Size: 8000 gal
   Foam Buster (Group 2 process vent)
   Condenser (Group 2 process vent)

Description:
Primary Product: Acrylonitrile Butadiene
Control Equipment for VOC: Group 1 vents - Flare; Group 2 vents - None

APPLICABLE REGULATIONS:
Regulation 401 KAR 63:002 (40 CFR Part 63*) National Emission Standards for Hazardous Air Pollutants* applies to the Elastomer Product Process Unit (EPPU). Specifically, Regulation 40 CFR 63.480, Subpart U - *Group I Polymers and Resins* applies to the EPPU.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

1. Operating Limitations:

Group 2 Vents:

According to 40 CFR 63.487(g), Group 2 batch front-end process vents with annual emissions less than the level specified in 63.488(d) [11,800 kg/yr or 26,007 lb/yr] shall comply with 40 CFR 63.487(g)(1) and g(2) or 40 CFR 63.487(f)(1) and f(2).

40 CFR 63.487(g)(1): Establishes a *"batch cycle limitation"* that ensures emissions do not exceed 11,800 kg/yr (26,007 lb/yr)
40 CFR 63.487(f)(1): Establishes a *batch cycle limitation"* that ensures that Group 2 batch front-end vents do not become Group 1 vents.

Compliance Demonstration:

1. The "Batch Cycle Limitation" shall be determined according to 40 CFR 63.490(f).
2. 40 CFR 63.487(g)(1): If the "Batch Cycle Limitation" is changed from the current, Emissions shall be calculated and compared against the limit in 40 CFR 63.487(g)(1) to see if the emissions exceeded 11,800 kg/yr (26,007 lb/yr).
3. 40 CFR 63.487(f)(1): If the "Batch Cycle Limitation" is changed from the current, the Group status shall be re determined.
4. See the Record Keeping and Reporting Requirements below.

2. Emission Limitations:

a. Group 1 Vents:
See Section E – Source Control Equipment operating requirements.

b. Group 2 Vents:
If complying with 40 CFR 63.487(g)(1), the emissions from the each Group 2 process vent listed above shall not exceed 11,800 kg/yr (26,007 lb/yr).

Compliance Demonstration:

a. Group 1 Vents:
See Section E – Source Control Equipment operating requirements.

b. Group 2 Vents:
See the compliance demonstration for 1. Operating Limitations above.

3. Testing Requirements:

a. Group 1 Vents:
See Section E – Source Control Equipment operating requirements.

b. Group 2 Vents: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

4. Specific Monitoring Requirements:

a. Group 1 Vents:

A device (Including but not limited to, a thermocouple, ultra-violet beam sensor, or infrared sensor) capable of continuously detecting the presence of a pilot flame shall be installed on the Flare.

b. Group 2 Vents**:** None

5. Specific Recordkeeping Requirements:

a. See Section D, Source Emission Limitations and Testing Requirements.

b. Group 1 Vents: The following records shall be kept up-to-date and readily accessible:
40 CFR 63.491(b)(3):

i. The flare design (i.e., steam-assisted, air-assisted, or non-assisted)

ii. All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required by 40 CFR 63.11(b) of Subpart A.

iii. All periods during the compliance determination required by 40 CFR 63.11(b) of subpart A when the pilot flame is absent.

401 KAR 63.491(f) and 63.118(a)(1):

iv. Hourly records of whether the monitor was continuously operating during batch emission episodes selected for control and whether the pilot flame was continuously present during each hour.

v. Record and report the presence of a flame at the pilot light over the full period of the compliance determination [Report in Notification of Compliance Status].

vi. Record the times and durations of all periods during batch emission episodes when a pilot flame is absent or the monitor is not operating.

vii. Report the times and durations of all periods during batch emission episodes selected for control when all pilot flames of a flare are absent [Periodic Reports as specified in 40 CFR 63.506(e)(6)].

c. Group 2 Vents:

According to 40 CFR 63.491(d), Group2 batch front-end process vent shall comply with either paragraph 40 CFR 63.491(d)(1) or d(2) based on whether process vent is complying with 43 CFR 63.487(g) or 63.487(f) respectively.

i. 63.491(d)(1) - The following records shall be kept up-to-date and readily accessible:
   a. Records designating the established batch cycle limitation required by 63.487(g)(1) and specified 63.490(f).
   b. Records specifying the number and type of batch cycles accomplished.

ii. 63.491(d)(2) - The following records shall be kept up-to-date and readily accessible:
   a. Records designating the established batch cycle limitation required by 63.487(f)(1) and specified by 63.490(f).
   c. Records specifying the number and type of batch cycles accomplished for each three-month period.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

6. Specific Reporting Requirements:

a. See Section D, Source Emission Limitations and Testing Requirements.

b. Group 1 Vents:
For each aggregate batch vent stream complying with 40 CFR 63.487(b), the information specified in 5. Specific Record Keeping for Group 1 vents shall be reported as part of the Notification of compliance status specified in 40 CFR 63.506(e)(5). [40 CFR 63.492(a)(1)]

c. Group 2 Vents:
   i. If the process vent is complying with 43 CFR 63.487(g), the reporting shall be done according
   to 40 CFR 63.492(a)(2), 63.492(b), and 63.492(c).
   ii. If the process vent is complying with 43 CFR 63.487(f), the reporting shall be done according to 40 CFR 63.492(a)(3), and 63.492(b).

7. Specific Control Equipment Operating Conditions:

a. Group 1 Vents:
According to 40 CFR 63.487(b), the Aggregate Batch Vent Stream (ABVS) shall reduce the organic HAP emissions using a flare. The flare shall comply with requirements of 40 CFR 63.11(b) of Subpart A.

b. Group 2 Vents: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

-- ( ) COPOL - Back End Processes

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None

2. **Emission Limitations:** None

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:** None

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:** None

Note: According to 40 CFR 63.493, the Owners and operators of affected sources that produce only liquid rubber products in a gas-phased polymerization reaction are not subject to the Back-end process provisions.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

03 (--) COPOL - Surge Control Vessels

Stack: (VT-1101-2) Flare
The following equipment/operations are vented to the Flare (VT-1101-2)

1. Vessel T-40 (Subject to 40 CFR 63.170, Subpart H)
   Construction Date: 1/1/90, Size: 20,000 gal
2. Vessel T-41 (Exempt from Subpart H requirements)
   Construction Date: 1/1/90, Size: 300 gal < 20,000 gallons
3. Vessel T-42 (Exempt from Subpart H requirements)
   Construction Date: 1/1/90, Size: 2,500 gal < 20,000 gallons

Description:
Surge Control Vessels: Collect vented VOC's and stripped gases from the process. The discharge from this vessel continues through a compressor, compressed gas tank (T-42) and finally to flare.
Control Equipment for HAPS and VOC's: Flare

APPLICABLE REGULATIONS:

Regulation 401 KAR 63:002 (40 CFR Part 63*) National Emission Standards for Hazardous Air Pollutants* applies to the Elastomer Product Process Unit (EPPU). Specifically, Regulation 40 CFR 63.480, Subpart U - Group I Polymers and Resins applies to the EPPU.

Regulation 401 KAR 63:015, *Flares* applies to the particulate matter emissions from the Flare.

1. Operating Limitations:
According to 40 CFR 63.170, Each Surge control vessel that is not routed back to the process and meets the conditions in table 2 or table 3 of subpart H (Vessel T-40 meets the requirement), shall be equipped with a closed-vent system that routes the organic vapors vented from the surge control vessel to a control device that complies with the requirements in 40 CFR 63.172.

Compliance Demonstration:
Hampshire has submitted information showing that a closed-vent system is in place which is routed to a Flare.

2. Emission Limitations:
See Section E, Source Control Equipment Operating Requirements.

3. Testing Requirements:
See the Specific Monitoring Requirements below.

4. Specific Monitoring Requirements:

a. Except if any parts of closed-vent system designated unsafe for inspection according to 40 CFR 63.181(b)(7)(i), each closed vent system shall be inspected according to the procedures and schedule specified in 40 CFR 63.172(f)(1) and f(2).
b. Each closed-vent system shall be inspected according to the procedures in 40 CFR 63.180(b).
c. Leaks shall be repaired according to 40 CFR 63.172(h).
d. Flare: See Section E, Source Control Equipment Operating Requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

5. Specific Recordkeeping Requirements:

a. The permittee shall keep records as specified in 40 CFR 63.506.
b. Flare: See Section E, Source Control Equipment Operating Requirements.
c. See Section D, Source Emission Limitations and Testing Requirements.

6. Specific Reporting Requirements:

a. The permittee shall submit Periodic Reports as specified in 40 CFR 63.506.
b. Flare: See Section E, Source Control Equipment Operating Requirements.
c. See Section D, Source Emission Limitations and Testing Requirements.

7. Specific Control Equipment Operating Conditions:

a. According to 40 CFR 63.173(m), whenever organic HAP emissions are vented to the Flare through the closed-vent system, the Flare shall be operating.
b. According to 40 CFR 63.172(d), The flare shall comply with the requirements of 40 CFR 63.11(b), Subpart A.
c. According to 40 CFR 63.11(b)(2), Flares shall be steam-assisted, air-assisted or non-assisted.
d. The owner or operator of the Flare shall follow the specifications in 40 CFR 63.12(b)(6)(ii) for heat content and b(7) or b(8) for maximum tip velocity or follow the requirements in 40 CFR 63.12(b)(6)(i).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

04 (--) COPOL - Storage Vessels

(V-511) Acrylonitrile Tank (Group 2 Storage Tank < 20,000 gallons)
Construction Date: 1/1/62, Size: 15,000 gal
(V-517) Butadiene Tank (Exempt from Subpart U requirements)
Uses Vapor Balance and operates at > 29.7 psia without emissions to air
Construction Date: 1/1/58, Size: 45,000 gal
(V-518) Butadiene Tank (Exempt from Subpart U requirements)
Uses Vapor Balance and operates at > 29.7 psia without emissions to air
Construction Date: 1/1/58, Size: 45,000 gal

Description:
Control Equipment for HAPS and VOC's: None

APPLICABLE REGULATIONS:

Regulation 401 KAR 63:002 (40 CFR Part 63) *National Emission Standards for Hazardous Air Pollutants applies to the Elastomer Product Process Unit (EPPU).* Specifically, Regulation 40 CFR 63.480, Subpart U - Group I Polymers and Resins applies to the EPPU.

1. **Operating Limitations:** None

2. **Emission Limitations:**
None [40 CFR 63.119(a)(3) – The permittee shall comply with the recordkeeping requirements in 40 CFR 63.123(a) for Group 2 tanks]

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**
   a. Group 2 Storage Tanks: Pursuant to Regulation 40 CFR 63.123(a), the permittee shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. These records shall be kept as long as the storage vessel retains Group 2 status and is in operation.
   b. See Section D, Source Emission Limitations and Testing Requirements.

6. **Specific Reporting Requirements:**
   a. The permittee shall submit the Notification of Compliance Status as required by 40 CFR 63.506(e)(5). The Notification shall include the information specified in 40 CFR 63.152(b)(1).
   b. See Section D, Source Emission Limitations and Testing Requirements.

7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

05 (--) COPOL - Wastewater Streams:

--	(--)	V-29 Drain	(Group2 Waste Water Stream)
--	(--)	V-30 Drain	(Group2 Waste Water Stream)
--	(--)	R-50 Flush	(Group2 Waste Water Stream)
--	(--)	R-50 Sample	(Group2 Waste Water Stream)
--	(--)	R-51 Flush	(Group2 Waste Water Stream)
--	(--)	R-51 Sample	(Group2 Waste Water Stream)
--	(--)	R-50 Condensate/Vacuum System	(Group2 Waste Water Stream)
--	(--)	R-51 Condensate/Vacuum System	(Group2 Waste Water Stream)
--	(--)	Cleaning 121L transfer line to product storage tanks	(Group2 Waste Water Stream)
--	(--)	Maintenance Waste Water	(Group2 Waste Water Stream)

Note: There are no wastewater tanks, surface impoundments, containers, individual drain systems, treatments processes, oil-water separators, or control devices that handle, transfer or store any Group 1 wastewater streams in COPOL process.

APPLICABLE REGULATIONS:

Regulation 401 KAR 63:002 (40 CFR Part 63) *National Emission Standards for Hazardous Air Pollutants* applies to the Elastomer Product Process Unit (EPPU). Specifically, Regulation 40 CFR 63.480, Subpart U - Group I Polymers and Resins applies to the EPPU.

1. **Operating Limitations:**
   According to 40 CFR 63.501(a), the owner or operator shall comply with the requirements of *63.131* through 63.148 of subpart G, with the differences noted in paragraphs 40 CFR 63.501(a)(1) through a(11).

2. **Emission Limitations:** None

3. **Testing Requirements:**
   The permittee shall follow the test methods and procedures described in 40 CFR 63.144 for determining the applicability and Group 1/Group 2 determinations as required.

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall keep records of all reports submitted in accordance with 40 CFR 63.146 including the Notice of Compliance Status [40 CFR 63.506(e)(5)]. However, according to 40 CFR 63.501(3) and (4), the permittee need not comply with Implementation Plan [40 CFR 63.151] and Initial notification Plan [40 CFR 63.151(b)] requirements respectively.
   b. If the permittee uses process knowledge to determine the VOHAP concentration of a wastewater stream and/or uses process knowledge to determine the annual average flow rate, readily accessible documentation of how the process knowledge was used in these determinations shall be kept [40 CFR 63.147(g)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

c. The permittee shall comply with the provisions of 40 CFR 63.132(a) of Subpart G. Pursuant to 40 CFR 63.132(a)(3), the permittee shall comply with the recordkeeping and reporting requirements of 40 CFR 63.146 and 63.147. Pursuant to 40 CFR 63.132(a)(1)(i), the permittee shall make Group 1 or Group 2 determinations.

6. Specific Reporting Requirements:

a. The permittee shall submit Periodic Reports as specified in 40 CFR 63.506(e)(6).
b. See Section D, Source Emission Limitations and Testing Requirements.

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

06 (--) COPOL- EQUIPMENT LEAK PROVISIONS - PIPELINE EQUIPMENT:

(--)	COPOL Process Pipeline Equipment:	4	Light Liquid Pumps
		30	Gas Valves
		1000	Gas Flanges
		25	Gas Open Ended Lines
		42	Sampling Connections
		100	Light Liquid Valves
(--)	COPOL Storage Pipeline Equipment:	2	Light Liquid Pumps
		100	Light Liquid Valves
		500	Liquid Flanges
(--)	COPOL Surge Control Pipeline Equipment:	2	Light Liquid Pumps
		53	Light Liquid Valves
		249	Liquid Flanges
		1	Compressor
		10	Gas Valves
		1	Agitator

(--) Wastewater emissions from hot wells, sewers, manholes, and wastewater treatment plant basins and tanks.

Note: These equipment counts are accurate only at the time the permit is issued and are not meant to be enforceable.

APPLICABLE REGULATIONS:

Regulation 401 KAR 63:002 (40 CFR Part 63*) National Emission Standards for Hazardous Air Pollutants* applies to the Elastomer Product Process Unit (EPPU). Specifically, Regulation 40 CFR 63.480, Subpart U - Group I Polymers and Resins applies to the EPPU.

According to **40 CFR 63.502**, Regulation 40 CFR 63 Subpart H applies to the pipeline equipment listed above with the exceptions noted in 40 CFR 63.502(b) through (j).

1. Operating Limitations:

For the pipeline equipment in organic HAP service, the permittee shall maintain a leak detection and repair (LDAR) program containing the following elements:

a. Each piece of pipeline equipment within the COPOL area shall be identified such that it can be distinguished readily from equipment that is not subject to 40 CFR 63 Subpart H [40 CFR 63.162 (c)].

b. When a leak is detected as specified in 40 CFR 63.163 and 63.164; 63.168 and 63.169; and 63:172 through 63.174, the procedures described in 40 CFR 63.162 (f) (1) - (3) shall be followed to identify the leaking piece.

c. See the Specific standards for each type of pipeline equipment described under **2. Emission Limitations** below.

Compliance Demonstration Method:

Compliance with 40 CFR 63 Subpart H shall be determined by review of the records required by 63.181 and the reports required by 63.182, review of performance test results, and by inspections [40 CFR 63.162 (a)].

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

2. Emission Limitations:

The permittee shall incorporate the following elements in the required leak detection and repair (LDAR) program. If any of the equipment qualifies for the specific exemptions available in 40 CFR 63.502(b) through (j) or 40 CFR 63 Subpart H, the permittee shall maintain records of the reason(s) why the equipment is exempt.

a. Standards: Pumps in light liquid service [40 CFR 63.163]:

40 CFR 63.163 (a)	Implementation and compliance provisions
40 CFR 63.163 (b)	Monitoring requirements, leak detection levels, frequency of monitoring
40 CFR 63.163 (c)	Repair procedures and time frames
40 CFR 63.163 (d)	Calculation procedures to determine percent leaking pumps and requirements for quality improvement programs
40 CFR 63.163 (e)-(j)	Exemptions for specific types of pumps

b. Standards: Pressure relief devices in gas/vapor service [40 CFR 63.165]:

40 CFR 63.165 (a)	Operational requirements
40 CFR 63.165 (b)	Pressure release procedures
40 CFR 63.165 (c)-(d)	Exemptions for specific types of pressure relief devices

c. Standards: Open-ended valves or lines [40 CFR 63.167]:

40 CFR 63.167 (a)-(c)	Operational requirements
40 CFR 63.167 (d)-(e)	Exemptions for specific types of valves

d. Standards: Valves in gas/vapor service and in light liquid service [40 CFR 63.168]:

40 CFR 63.168 (a)	Operational requirements
40 CFR 63.168 (b)-(d)	Monitoring requirements and intervals
40 CFR 63.168 (e)	Calculation procedures to determine percent leaking valves
40 CFR 63.168 (f)	Leak repair time frames
40 CFR 63.168 (g)	First attempt repair procedures
40 CFR 63.168 (h)-(i)	Exemptions for unsafe-to-monitor and difficult-to-monitor valves.

e. Standards: Delay of repair [40 CFR 63.171]:

40 CFR 63.171	Allowances for delay of repair

f. Standards: Connectors in gas/vapor service and in light liquid service [40 CFR 63.174]:

40 CFR 63.174 (a)	Operational requirements
40 CFR 63.174 (b)	Monitoring requirements and intervals
40 CFR 63.174 (c)	Procedures for open connectors or connectors with broken seals
40 CFR 63.174 (d)	Leak repair time frames
40 CFR 63.174 (e)	Monitoring frequency for repaired connectors inaccessible, or ceramic connectors
40 CFR 63.174 (i)	Calculation procedures to determine percent leaking connectors
40 CFR 63.174 (j)	Optional credit for removed connectors

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

g. Quality improvement program for valves [40 CFR 63.175]:
Pursuant to 40 CFR 63.168 (d)(1)(ii), in Phase III, the permittee may elect to implement the following quality improvement programs if the percent of leaking valves is equal to or exceeds 2 percent:

40 CFR 63.175 (a)	Quality improvement program alternatives
40 CFR 63.175 (b)	Criteria for ending quality improvement programs
40 CFR 63.175 (c)	Alternatives following achievement of less than 2 percent leaking valves target
40 CFR 63.175 (d)	Quality improvement program to demonstrate further progress
40 CFR 63.175 (e)	Quality improvement program of technology review and improvement

h. Quality improvement program for pumps [40 CFR 63.176]:
Pursuant to 40 CFR 63.163 (d)(2), if, in Phase III, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in the ethylene oxide area or three pumps in the ethylene oxide area leak, the permittee shall implement the following quality improvement programs for pumps:

40 CFR 63.176 (a)	Applicability criteria
40 CFR 63.176 (b)	Criteria for ending the quality improvement program
40 CFR 63.176 (c)	Criteria for resumption of the quality improvement program
40 CFR 63.176 (d)	Quality improvement program elements

Compliance Demonstration Method:
A copy of the leak detection and repair (LDAR) program meeting the criteria listed above shall be kept available at a readily accessible location for inspection.

3. Testing Requirements:
The permittee shall comply with the following test methods, schedules and procedures requirements [40 CFR 63.180 (a)]:

40 CFR 63.180 (b)	Monitoring procedures, test methods and calibration procedures
40 CFR 63.180 (c)	Leak detection monitoring procedures
40 CFR 63.180 (d)	Procedures for determining organic HAP service applicability

4. Specific Monitoring Requirements: See 3. Testing Requirements above.

5. Specific Recordkeeping Requirements: [40 CFR 63.181]

a. All records required by 40 CFR 63.181 shall be maintained in a manner that can be readily accessed at the plant site.
b. The permittee shall maintain all records pertaining to the pipeline equipment required by 40 CFR 63.181 (b).
c. For visual inspections, the permittee shall document that the inspection was conducted and the date of the inspection. These records shall be kept for a period of five years [40 CFR 63.181 (c)].
d. When a leak is detected, the information specified in 40 CFR 63.181 (d) shall be recorded and kept for five years.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

5. Specific Recordkeeping Requirements: [40 CFR 63.181] (continued)

e. If the permittee implements any of the quality improvement programs required by 40 CFR 63.175 and 63.176, the records specified in 40 CFR 63.181 (h)(1)-(9) shall be maintained for a period of five years.

f. See Section D, Source Emission Limitations and Testing Requirements.

6. Specific Reporting Requirements:

The permittee shall submit the following reports:

a. 40 CFR 63.502(h), Notification of Compliance Status - The permittee shall submit the Notification of Compliance Status required by 40 CFR 63.182 (a)(2) and 40 CFR 63.182 (c) of Subpart H within 150 days of applicable compliance date as specified in 63.481 for the equipment leak provisions (July 31, 1997). The Notification can be submitted as part of the Notification of Compliance Status required by 40 CFR63.506(e)(5).[Notification of Compliance Status shall be submitted by March 5, 2000]

b. 40 CFR 63.502(i), Periodic Reports - The permittee shall submit to the Division, semiannually, the information required by 40 CFR 63.182 (a)(3) and 40 CFR 63.182 (d)(2) [40 CFR 63.506(e)(6)]. The first periodic report shall cover the first 6 months after the compliance date specified in 40 CFR 63.481 of Subpart U. Each subsequent periodic report shall cover the 6-month period following the preceding period.

c. See Section D, Source Emission Limitations and Testing Requirements.

7. Specific Control Equipment Operating Conditions: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

NOTE: FOR A DESCRIPTION OF THE EQUIPMENT IN EACH REACTOR TRAIN AND THE TANKS IN THE RAW MATERIAL TANK STORAGE FARM, SEE APPENDIX A

07 DAXAD (Reactor train R-360)

Description:

Reactor train 360 was originally constructed in 1959 to produce Nudasol, and was converted in 1987 to produce DAXAD. Current maximum operating rate is 6703 lbs/batch, with one batch produced every 24 hours. No control devices are installed in this production line. Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

08 DARAN (Reactor train R-200)

Description:

Reactor train 200 was originally constructed in 1962 to produce DARAN. Current maximum operating rate is 14338 lbs/batch, with one batch produced every 28 hours. No control devices are installed in this production line. Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

09 DARAN (Reactor train R-210)

Description:

Reactor train 210 was originally constructed in 1970 to produce DARAN. Current maximum operating rate is 18967 lbs/batch, with one batch produced every 28 hours. No control devices are installed in this production line. Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

10 DARAN (Reactor train R-220)

Description:

Reactor train 220 was originally constructed in 1986 to produce DARAN. Current maximum operating rate is 38235 lbs/batch, with one batch produced every 40 hours. No control devices are installed in this production line. Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

11 DARAN (Reactor train R-230)

Description:

Reactor train 230 was originally constructed in 1959 to produce COPOL. It was converted for DARAN production in 1994. Current maximum operating rate is 38235 lbs/batch, with one batch produced every 40 hours. Vents VT 1104-18 and VT 1104-23 vent to the flare (vent VT 1101-2). Vent VT 1301-7 (the manual/emergency vent on reactor R-230) is tied to a dilution blower which exhausts through vent VT-1101-1. Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

12 DMDNB (Reactors 360 and 650, in series, with accessory equipment)

Description:

The DMDNB reactor train was originally constructed in 1997. No permit was required under the two-ton/year exemption. The current maximum operating rate is 1300 lbs/batch, with one batch produced every 19 hours. The only control on emissions is that vent V 1604-3 vents to the flare. Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

13 PVA (Reactor train 157)

Description:

Reactor train 157 was originally constructed in 1969 to produce PVA. Current maximum operating rate is 30,756 lbs/batch, with one batch produced every 24 hours. No control devices are installed in this production line. Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

14 HYPOL (Reactor train R-450)

Description:

Reactor R-150 was originally constructed in 1959 to produce Nudasol, and was converted in 1987 to produce DAXAD. Production of Hypol in R-150 (renamed R-450) was begun in 1996. Current maximum operating rate is 17021 lbs/batch, with one batch produced every 48 hours. The only control device installed in this production line is an AMTEK 3” venturi water scrubber on vent VT 1604-1 (the reactor R-450 and R-460 manual vent). Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

15 HYPOL (Reactor train R-460)

Description:
Reactor R-155 was originally constructed in 1959 to produce Nudasol, and was converted in 1987 to produce DAXAD. Production of Hypol in R-155 (renamed R-460) was begun in 1996. Current maximum operating rate is 17021 lbs/batch, with one batch produced every 48 hours. The only control device installed in this production line is an AMTEK 3" venturi water scrubber on vent VT 1604-1 (the reactor R-450 and R-460 manual vent). Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

16 Raw materials tank farm

Description:
The raw material tank storage farm was started in 1959, with additions and changes being made up through 1996. Tanks subject to 40 CFR 60, Subpart Kb, are V-705 and V-531 built in 1989, and V-512 built in 1996. The only control device associated with any of the tanks is an AMTEK 2" venturi water scrubber on vent VT 3004-1 from the 2,4- toluene diisocyanate tank (V-410).

APPLICABLE REGULATIONS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to the toxic emissions. [April 9,1972]
40 CFR 60 Subpart Kb, Section 60.116b (b), *Standards of performance for volatile organic liquid storage vessels* (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984, applies to raw material storage tanks. [August 11, 1989]

1. **Operating Limitations:** N/A

2. **Emission Limitations:**
Pursuant to Regulation 401 KAR 63:020, Section 3, Hampshire Chemical shall not emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plant. Hampshire Chemical shall be deemed in compliance with 401 KAR 63:020 as long as source-wide potential to emit will not result in exceeding the following concentrations at the site perimeter:

Methanol:	620 micrograms/cubic meter
Methyl methacrylate:	980 micrograms/cubic meter
Vinylidene chloride:	32 micrograms/cubic meter
Acrylonitrile:	2 micrograms/cubic meter
Acrylic acid:	1 microgram/cubic meter
2-Nitropropane:	20 micrograms/cubic meter
Vinyl acetate:	200 micrograms/cubic meter
Styrene:	1000 micrograms/cubic meter
2,4-Toluene diisocyanate:	.095 micrograms/cubic meter
Ethyl acrylate	48 micrograms/cubic meter

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:

a. The Industrial Source Complex Short Term 3 (ISCST 3) modeling algorithm shall be used to calculate process emission concentrations. Emissions shall be calculated as follows: [superbatch emission rate (lbs/batch)][1 ton/2000 lbs][8760 hrs/yr][process time (hrs)/batch]
b. The United States Environmental Protection Agency's Office of Air Quality Planning and Standards, Emission Factor and Inventory Group's "Tanks" program, version 3.1 or later, shall be used to calculate emission concentrations from the raw material storage tanks.
c. Initial modeling must be completed within 120 days of permit issuance date.

3. Testing Requirements: N/A

4. Specific Monitoring Requirements:
For the raw materials tank farm, Hampshire Chemical shall keep records as required by 40 CFR 60 Subpart Kb, Section 60.116b (b).

5. Specific Recordkeeping Requirements:
The total number of batches of each product family produced (e. g., DAXAD, DARAN, HYPOL, etc.) and the average weight of each batch shall be recorded on a monthly basis. Modeling results must be available for inspection.

6. Specific Reporting Requirements: N/A

7. Specific Control Equipment Operating Conditions: N/A

8. Alternate Operating Scenarios: See Section H. NOTE: There is no alternate operating scenario shown for the raw materials tank farm; Hampshire Chemical may change the contents of raw materials tanks from those shown in Appendix A as required to meet production.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Welding	401 KAR 63:010
2.	Painting and associated activities (clean up, etc.)	401 KAR 63:010
3.	Pesticide and herbicide spraying	401 KAR 63:010
4.	Facilities and parts clean up	401 KAR 63:010
5.	Laboratory solvent usage	401 KAR 63:010
6.	Emergency electric power generation	401 KAR 63:010
7.	Polymers loading and packaging operation	401 KAR 63:010
8.	Sand blasting operations	401 KAR 63:010
9.	MALET (a PVA raw material) production	N/A

10. Finished polymer product storage tanks. NOTE: This list is organized (and identifies the tanks) by the product currently stored in the individual tank. This is done for the sake of clarity only. This permit does not preclude Hampshire Chemical from changing the contents of storage tanks among existing product lines to meet the requirements of their operation. Generally applicable regulations: N/A

DARAN: Tanks V-280 and V-281
V-270 and V-272 through V-274
V-290 and V-291
V-263 through V-269

DAXAD: Tanks V-311 though V-314

COPOL: Tanks V-60 through V-69
V-70 through V-78

PVA: Tanks V-90 through V-92
V-180 and V-181
V-191 through 194
V-160 through V-169
V-170 through V-179

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

The following requirements apply to All COPOL Processes (Emission Points 01 through 06):

Recordkeeping Requirements:

a. 40 CFR 63, Subpart A requirements:
Startup, shutdown, and malfunction plan: The permittee shall develop and implement a written startup, shutdown, and malfunction plan as specified in 40 CFR 63.6(e)(3) of subpart A [40 CFR 63.506(b)(1)]. The records shall be kept as specified in 40 CFR 63.506(b)(1)(i)(A) through 63.506(b)(1)(i)(D).

b. 40 CFR 63, Subpart U requirements [40 CFR 63.506(d), Recordkeeping and documentation]: The permittee shall keep records as specified in 40 CFR 63.506(d)(1) through (d)(8).

Reporting Requirements:

a. 40 CFR 63, Subpart A requirements:
   i. *Startup, shutdown, and malfunction plan*: The permittee shall submit the semiannual report [63.506(b)(1)(ii)] on the same schedule, as the Periodic Reports required by 63.506(e)(6). The report shall include the information specified in paragraphs 40 CFR 63.506(b)(1)(i)(A) through 63.506(b)(1)(i)(C) and shall contain the name, title, and signature of the responsible official who is certifying its accuracy.
   ii. *Application for approval of construction or reconstruction:* 40 CFR 63.506(b)(2)

b. 40 CFR 63, Subpart U requirements [40 CFR 63.506(e), Reporting and Notification]
   i. *Notification of Compliance Status* [63.506(e)(5)]*:* The permittee shall submit the Notification of Compliance Status within 150 operating days after the compliance dates specified in 40 CFR 63.481 [September 5, 1999]. The notification shall contain the information listed in paragraphs 40 CFR 63.506(e)(5)(i) through (e)(5)(vii) and (e)(5)(ix).
   ii. *Periodic Reports* [40 CFR 63.506(e)(6)]: The permittee shall submit Periodic Reports as specified in paragraphs 40 CFR 63.506(e)(6)(i) through (e)(6)(xi).

   iii. *40 CFR 63.506(e)(6)(i)*: The report shall contain the information as specified in paragraph 40 CFR 63.506(e)(6)(ii) or 40 CFR 63.506(e)(6)(iii) through (e)(6)(ix). The report shall be submitted semiannually no later than 60 operating days after the end of each 180 day period. The first report shall be submitted no later than 240 days after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due. Subsequent reports shall cover each preceding 6-month period.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

All Control Equipment:

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated federally required air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

FLARE:
Stack: (VT-1101-2) Flare

The following equipment/operations are vented to the Flare (VT-1101-2):

01 (--) Group 1 Process Vents

Caustic Wash Column, Column 29	(Group 1 process vent)
Caustic Wash Column, Column 30	(Group 1 process vent)
T-32 Washed Butadiene Hold Tank	(Group 1 process vent)
T-33 Washed Butadiene Hold Tank	(Group 1 process vent)
T-31 Monomer Mix Tank	(Group 1 process vent)
T-34 Monomer Mix Tank	(Group 1 process vent)

03 (--) COPOL - Surge Control Vessels

Vessel T-40 (Subject to 40 CFR 63.170, Subpart H)
Construction Date: 1/1/90, Size: 20,000 gal
Vessel T-41 (Exempt from Subpart H requirements)
Construction Date: 1/1/90, Size: 300 gal < 20,000 gallons
Vessel T-42 (Exempt from Subpart H requirements)
Construction Date: 1/1/90, Size: 2,500 gal < 20,000 gallons

Description:
The following Group requirements are applicable to all the above emission points in the COPOL processes, which are required to have the Flare to reduce the organic emissions. These requirements specifically are for the emission limits as specified in 40 CFR 63.11 and 401 KAR 63:015 for the flares. For Point Specific Conditions, See above in Section B.

APPLICABLE REGULATIONS:
Regulation 401 KAR 63:002 (40 CFR Part 63) *National Emission Standards for Hazardous Air Pollutants* applies to the Elastomer Product Process Unit (EPPU). Specifically, Regulation 40 CFR 63.11, Control Device Requirements - applies to the Flare.
Regulation 401 KAR 63:015, *Flares* applies to the particulate matter emissions from the Flare.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. **Operating Limitations:** None

2. **Emission Limitations:**
   a. Pursuant to 40 CFR 63.11(b)(4), Flares shall be designed for and operated with no visible emissions, except for periods not exceeding a total of 5 minutes during any 2 consecutive hours.
   b. Pursuant to Regulation 401 KAR 63:015, Section 3, the opacity of visible emissions from each flare listed above shall not exceed 20% for more than 3 minutes in any one day.

Compliance Demonstration:
   a. Test Method 22 and Test Method 9 in appendix A of part 60 shall be used to determine the compliance of flares with the visible emission provisions.
   b. See the Monitoring and Recordkeeping Requirements below.

3. **Testing Requirements:** See the 4. Specific Monitoring Requirements below.

4. **Specific Monitoring Requirements:**
   a. The permittee shall perform Method 22 testing for visible emissions [40 CFR 63.11(f)]. The observation period is 2 hours, for the duration of each venting episode. The permittee shall observe and record in the daily log the following information:
      1. The color of the emissions;
      2. Whether the emissions were light or heavy;
      3. The total duration of visible emission incident;
      4. The cause of the abnormal emissions; and
      5. Any corrective actions taken.
   b. If visible emissions are present during a venting episode, the permittee shall perform a Method 9 opacity test. The opacity observed shall be recorded in the daily log. A representative of the permittee certified in Visible Emissions Evaluations shall perform the reading. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and the date of Certification.

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain a log of the dates and times of each Method 22 test and either the results of the test (See 4. a. above) or reasons for not performing a Method 22 test.
   b. The permittee shall maintain a log of dates and times of each Method 9 test and either the results of the test (See 4. a. above) or reasons for not performing a Method 9 test.

6. **Specific Reporting Requirements:**
   The permittee shall submit Periodic Reports as specified in 40 CFR 63.506.

7. **Specific Control Equipment Operating Conditions:** None

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements.
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement;

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035, Permits, Section 7(1)(d)2 and 401 KAR 50:035, Permits, Section 7(2)(c)]

3. In accordance with the requirements of Regulation 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or authorized representatives to perform the following:
   a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
   b. Have access to and copy, at reasonable times, any records required by the permit:
      i. During normal office hours, and
      ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
   c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
      i. During all hours of operation at the source,
      ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii. During an emergency; and
   d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
      i. During all hours of operation at the source,
      ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii. During an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

5. Reports of any monitoring required by this permit shall be reported to the division's Owensboro Regional Office no later than the six-month anniversary date of this permit and every six months thereafter during the life of this permit, unless otherwise stated in this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to Section 6(1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

6. a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Owensboro Regional Office concerning startups, shutdowns, or malfunctions as follows:
    1. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
    2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.

   b. In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by general condition 6 a. above) to the Division for Air Quality's Owensboro Regional Office within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by general condition F.5.

7. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Owensboro Regional Office in accordance with the following requirements:
   a. Identification of each term or condition of the permit that is the basis of the certification;
   b. The compliance status regarding each term or condition of the permit;
   c. Whether compliance was continuous or intermittent; and
   d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

e. The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. **Annual compliance certifications should be mailed to the following addresses:**

U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Owensboro Regional Office
3032 Alvey Park Drive W
Owensboro, Ky., 42303

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.

9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, Permits, Section 7(3)(d), a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act], and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the division, in writing, information that the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

SECTION G - GENERAL CONDITIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, Permits, Section 7(3)(k)]

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, Permits, Section 7(3)(e)]

8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 50:035, Permits, Section 7(3)(h)]

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, Permits, Section 8(3)(b)]

11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, Permits, Section 7 (3)(g)]

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, Permits, Section 7(2)(b)5]

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, Permits, Section 8(3)(a)]

15 Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.

16. All previously issued construction and operating permits are hereby subsumed into this permit.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 50:035, Permits, Section 12]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

(d) Acid Rain Program Requirements

If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(e) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
   d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency,

SECTION G - GENERAL CONDITIONS (CONTINUED)

steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, Permits, Section 9(3)]

(f) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:
   RMP Reporting Center
   P.O. Box 3346
   Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information by the division or the U.S. EPA.

(g) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

The alternate operating scenarios set forth below have been approved by the division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a)15, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

Alternate OPERATING SCENARIO 1

DARAN (Reactor train R-51)

Description: Primary components are:

1. Monomer mix tank V-34 with vents
   VT 1104-18 (emergency vent on monomer mix tank V-231)
   VT 1104-23 (manual vent on monomer mix tank V-231)
2. Continuous feed tank V-653 with vent
   VT 6004-1
3. Continuous feed tank V-654 with vent
   VT 6004-2
4. Glacial methacrylate tank V-701 with vent
   VT 3004-1
5. Reactor R-51 with vents
   VT 1104-1 (steam ejector vent on reactor R-51)
   VT 1104-12 (steam out vent for reactor R-51)
   VT 1104-25 (manual/emergency vent for R-51)
6. Condenser H-R51 with vents
   VT 1104-12
   VT 1104-38
7. Vacuum receiver VR-R51 with vent
   VT 1104-7 (emergency vent for R-51 vacuum receiver)

Reactor train 51 was originally constructed in 1959 to produce COPOL. It was modified in 1995 so that it could also produce DARAN, though its primary product is still COPOL. Current maximum production rate for DARAN is 38235 lbs/batch, with one batch produced every 40 hours. Vents VT 1104-18, VT 1104-23, VT 1104-38, and VT 1104-25 vent to the flare (vent VT 1101-2). Vents VT 1104-12 (the manual/emergency vent on reactor R-51) and VT 1104-12 (on condenser H-R51) are tied to a dilution blower that exhausts through vent VT-1101-1. Wastewater produced in this product line is collected and transmitted to the wastewater treatment plant.

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

APPLICABLE REGULATIONS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to the toxic emissions. [April 9, 1972]

1. **Operating Limitations:** N/A

2. **Emission Limitations:**
   Pursuant to Regulation 401 KAR 63:020, Section 3, Hampshire Chemical shall not emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plant. Hampshire Chemical shall be deemed in compliance with 401 KAR 63:020 as long as source-wide potential to emit will not result in exceeding the following concentrations at the site perimeter:

Methyl methacrylate:	980 micrograms/cubic meter
Vinylidene chloride:	32 micrograms/cubic meter
Acrylonitrile:	2 micrograms/cubic meter
Acrylic acid:	1 microgram/cubic meter

   Compliance Demonstration Method: The Industrial Source Complex Short-Term 3 (ISCST 3) modeling algorithm shall be used to calculate emission concentrations. Emissions shall be calculated as follows:
   [superbatch emission rate (lbs/batch)][1 ton/2000 lbs][8760 hrs/yr][process time (hrs)/batch]

   Initial modeling must be completed within 120 days of permit issuance date.

3. **Testing Requirements:** N/A

4. **Specific Monitoring Requirements:** N/A

5. **Specific Recordkeeping Requirements:**
   Total number of batches of DARAN produced in Reactor 51 and the average weight of each batch shall be recorded on a monthly basis. Modeling results must be available for inspection.

6. **Specific Reporting Requirements:** N/A

7. **Specific Control Equipment Operating Conditions:** N/A

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

Alternate OPERATING SCENARIO 2

Reactor trains are described in this permit according to the primary product line for which they are used. Cross-utilization of equipment may be done in accordance with the following conditions:

1. Number of batches and their average weight shall be recorded and kept available with other production records.
2. All air pollution control equipment required for any process or for the manufacture of any product shall be operated and maintained in accordance with applicable regulations.
3. Toxic emission concentration limits shall not be exceeded.
4. All the applicable requirements for the given process including record keeping, monitoring, testing, and reporting must be complied with.
5. Cross-utilization may result in the total number of batches of a product family exceeding the maximum number of superbatches of that product which could be produced on the products' primary reactor trains during any twelve-month period. In that case ISCST 3 modeling must be reaccomplished and recorded to demonstrate continued compliance with emission concentration limitations.

SECTION I - COMPLIANCE SCHEDULE

N/A

APPENDIX A

07 DAXAD (Reactor train R-360)

Description: Primary components are:

1. Reactor R-360 with vents
   VT 1501-1 (manual vent on R-360 via condenser H-R360)
   VT 1504-1 (manual vent on R-360)
   VT 1504-3 (emergency vent for R-360)
2. Distillation tank V-302 with vent
   VT 1504-2 (vacuum receiver V-302 steam ejector vent for R-360)
3. Recovered 50 % methanol storage tank V-304 with vent
   VT 1501-3
4. Reboiler of distillation still BO-342 with vent
   VT 1501-2 (emergency vent)
5. Distillation still condenser H-D342 with vent
   VT 1504-4 (breather vent)
6. Overhead receiver tank V-343 with vent
   VT 1504-5
7. Remeth tank V-341 with vent
   VT 3001-2
8. Fugitives:
   2 light liquid pumps
   45 light liquid valves
   2 PR valves
   376 flanges and connectors
   2 open-ended lines
   20 sampling connections

08 DARAN (Reactor train R-200)

Description: Primary components are:

1. "A" Monomer mix tank V-201 with vents
   VT 1301-1 (manual/emergency vent on tanks V-201 and V-211)
   VT 1308-1 (steam ejector (vacuum) vent for monomer mix tanks A, B, and C, and reactors A, B, and C)
2. DESM tank V-205 (open top)
3. "A" Continuous catalyst tank V-203 with vent
   VT 1308-10
4. SEDAR tank V-207 with vent
   VT 1301-6"A" Reactor R-200 with vents
   VT 1301-2 (manual/emergency vent on reactor R-200)
   VT 1308-1 (steam ejector (vacuum) vent for monomer mix tanks A, B, and C, and reactors A, B, and C)

APPENDIX A

5. Pre-stripped latex tanks V-241 and V-242 (PSLT 1 and 2) with vent
   VT 1308-6 (manual vent on PSLTs 1 and 2)
6. "A" Stripper S-200 in series with "A" condenser H-200 and "A" vacuum receiver VR-H200, with vent
   VT 1308-3 (two-stage steam ejector (vacuum) vent for the "A" stripper)
7. Stripped latex tanks V-251 and V-252 (SLT 1 and 2) with vents
   VT 1308-8 (steam ejector (vacuum) vent for SLTs 1, 2, 3, and 4, and
   VT 1308-12 (manual vents on SLTs 1 and 2)
9. Fugitives:
   1 light liquid pump
   1 gas/vapor valve
   32 light liquid valves
   2 heavy liquid valves
   2 PR valves
   258 flanges/connectors
   2 open-ended lines
   6 sampling connections

09 DARAN (Reactor train R-210)

Description: Primary components are:

1. "B" Monomer mix tank V-211 with vents
   VT 1301-1 (manual/emergency vent on tanks V-201 and V-211)
   VT 1308-1 (steam ejector (vacuum) vent for monomer mix tanks A, B, and C, and reactors A, B, and C)
2. DESM tank V-215 (open top)
3. "B" Continuous catalyst tank V-213 with vent
   VT 1308-11
4. SEDAR tank V-207 with vent
   VT 1301-6
5. "B" Reactor R-210 with vents
   VT 1301-3 (manual/emergency vent on reactor R-210)
   VT 1308-1 (steam ejector (vacuum) vent for monomer mix tanks A, B, and C, and reactors A, B, and C)
6. Pre-stripped latex tanks V-243 and V-244 (PSLT 3 and 4) with vent
   VT 1308-7 (manual vent on PSLTs 3 and 4)
7. "B" Stripper S-210 in series with "B" condenser H-210 and "B" vacuum receiver VR-H210, with vent
   VT 1308-4 (two-stage steam ejector (vacuum) vent for the "B" stripper)
8. Stripped latex tanks V-253 and V-254 (SLT 3 and 4) with vents
   VT 1308-8 (steam ejector (vacuum) vent for SLTs 1, 2, 3, and 4, and
   VT 1308-13 (manual vents on SLTs 3 and 4)

APPENDIX A

9. Fugitives:
    2 light liquid pump
    1 gas/vapor valve
    31 light liquid valves
    2 heavy liquid valves
    1 PR valve
    257 flanges/connectors
    2 open-ended lines
    6 sampling connections

10 DARAN (Reactor train R-220)

Description: Primary components are:

1. "C" Monomer mix tank V-211 with vents
    VT 1301-4 (manual/emergency vent on tank V-221)
    VT 1308-1 (steam ejector (vacuum) vent for monomer mix tanks A, B, and C, and reactors A, B, and C)
2. DESM tank V-225 with vent
    VT-1308-9
3. "C" Continuous catalyst tank V-223
4. SEDAR tank V-207 with vent
    VT 1301-6
5. "C" Reactor R-220 with vents
    VT 1301-4 (manual/emergency vent on reactor R-220)
    VT 1308-1 (steam ejector (vacuum) vent for monomer mix tanks A, B, and C, and reactors A, B, and C)
6. "C" Stripper S-220 in series with "C" condenser H-220 with vents
    VT 1308-5 (two-stage steam ejector (vacuum) vent for the "C" stripper)
    VT-1308-2 (manual vent on "C" stripper S-220)
7. Fugitives:
    1 light liquid pump
    1 gas/vapor valve
    31 light liquid valves
    2 heavy liquid valves
    1 PR valve
    257 flanges/connectors
    2 open-ended lines
    6 sampling connections

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11 DARAN (Reactor train R-230)

Description: Primary components are:

1. Monomer mix tank V-231 with vents
   VT 1104-18 (emergency vent on tank V-231)
   VT 1104-23 (vent for monomer mix tank V-231)

2. Continuous catalyst tank V-233 with vent
   VT 1304-2
3. SEDAR tank V-207 with vent
   VT 1301-6
4. Glacial methacrylate tank V-701 with vent
   VT 3004-1
5. Reactor R-230 with vents
   VT 1301-7 (manual/emergency vent on reactor R-230)
   VT 1304-1 (steam ejector vent for reactor R-230)
6. Fugitives:
   1 heavy liquid pump
   31 light liquid valves
   1 heavy liquid valve
   1 PR valve
   257 flanges/connectors
   3 open-ended lines
   7 sampling connections

12 DMDNB (Reactors 360 and 650, in series, with accessory equipment)

Description: Primary components are:

1. Monomer mix tank V-652 with vent
   VT 6004-3 (manual vent on monomer mix tank V-652)
2. Reactor R-650 with vents
   VT 6001-1 (manual vent on reactor R-650)
   VT 6001-2 (emergency vent on reactor R-650)
   VT 6004-2 (emergency vent on reactor R-650)
3. Reactor R-360 with vents
   VT 1501-1 (manual vent on reactor R-360 through condenser H-R360-2)
   VT 1504-1 (manual vent on reactor R-360 through condenser H-R360)
   VT 1504-2 (steam ejector vent for reactor R-360)
   VT 1504-3 (emergency vent for reactor R-360
   VT 1606-3 (steam ejector vent to create vacuum on R-450, R-460, V-451, and R-360)
4. Filter/dryer V-899 with vent
   VT 899-1 (vacuum line from vessel V-899)

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5. Fugitives:
   1 light liquid pump
   4 gas/vapor valves
   54 light liquid valves
   1 PR valve
   66 flanges/connectors
   1 sampling connection

13 PVA (Reactor train 157)

Description: Primary components are:

1. Monomer mix tank V-130 with vent
   VT 3404-1
2. Styrene addition tank SB-V130 with vent
   VT 3404-2
3. Feed tanks V-120 and V-121 with vent
   VT 3404-3
4. Styrene addition tank SB-R157 with vent
   VT 3404-4
5. Emulsifier tanks V-128 and V-129 with vent
   VT 3404-8 (vents through exhaust fan)
6. Reactor R-157 with vents
   VT 3404-5 (steam ejector vent through condenser HR-157 and vacuum receiver VR-157)
   VT 3401-1 (steam ejector vent for reactor R-157)
7. Condenser HR-157 with vent
   VT 3404-6 (manual vent for condenser HR-157 and vacuum receiver VR-157)
8. Vacuum receiver VR-157 with vent
   VT 3404-6 (manual vent for condenser HR-157 and vacuum receiver VR-157)
9. Fugitives:
   3 light liquid pumps
   4 heavy liquid pumps
   3 gas/vapor valves
   83 light liquid valves
   38 heavy liquid valves
   3 PR valves
   1 light liquid agitator
   1024 flanges/connectors
   9 open-ended lines
   26 sampling connections

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14 HYPOL (Reactor train R-450)

Description: Primary components are:

1. Polyethylene glycol mix tank V-451with vents
   VT 1604-2 (manual vent on V-451)
   VT 1604-3 (steam ejector vent through vacuum receiver VR-450 for reactors R-450 and R-460 and tank V-451)
2. Reactor R-450 with vents
   VT 1604-3 (steam ejector vent through vacuum receiver VR-450 for reactors R-450 and R-460 and tank V-451)
   VT 1604-1 (manual vent for reactors R-450 and R-460)
   VT 1604-4 (sampling hood vent from reactors R-450 and R-460)
3. Packaging hood with vent
   VT 1603-1 (exhaust fan vent in Hypol packaging area)

4. Fugitives:
   1 light liquid pump
   1 heavy liquid pump
   5 gas/vapor valves
   1 light liquid valve
   32 heavy liquid valves
   3 heavy liquid agitators
   167 flanges/connectors
   4 open-ended lines
   10 sampling connections

15 HYPOL (Reactor train R-460)

Description: Primary components are:

1. Polyethylene glycol mix tank V-451with vents
   VT 1604-2 (manual vent on V-451)
   VT 1604-3 (steam ejector vent through vacuum receiver VR-450 for reactors R-450 and R-460 and tank V-451)
2. Reactor R-460 with vents
   VT 1604-3 (steam ejector vent through vacuum receiver VR-450 for reactors R-450 and R-460 and tank V-451)
   VT 1604-1 (manual vent for reactors R-450 and R-460)
   VT 1604-4 (sampling hood vent from reactors R-450 and R-460)
3. Packaging hood with vent
   VT 1603-1 (exhaust fan vent in Hypol packaging area)

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4. Fugitives:
   1 light liquid pump
   2 heavy liquid pumps
   4 gas/vapor valves
   2 light liquid valves
   32 heavy liquid valves
   3 heavy liquid agitators
   167 flanges/connectors
   5 open-ended lines
   9 sampling connections

16 Raw materials tank farm

Description: Primary components are:

1. Polyethylene glycol tank V-432 with vent
   VT 3004-2
2. Polyethylene glycol tank V-435 with vent
   VT 3004-5
3. Polyether Polyol tank V-436 with vent
   VT 3004-3
4. 2,4-Toluene diisocyanate tank V-410 with vent
   VT 3001-4
5. Glacial Methacrylic acid tank V-701 with vent
   VT 3004-1
6. Ammonium hydroxide tank V-703 with vent
   VT 3001-1
7. Propylene glycol tank V-705 with vent
   VT 3001-5
8. Sodium hydroxide tank V-303 with vent
   VT 3004-4
9. Methyl acrylate tank V-521 with vent
   VT 3000-1
10. Butyl acrylate tank V-525 with vent
    VT 3000-2
11. 2-Ethylhexyl acrylate tank V-522 with vent
    VT 3000-3
12. Di-N-Butyl maleate tank V-514 with vent
    VT 3000-4
13. Methyl methacrylate tank V-512 with vent
    VT 3000-5
14. Methanol tank V-513 with vent
    VT 3000-6

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15. Vinylidene chloride tank V-531 with vent
    VT 3000-7
16. Hexylene glycol tank V-516 with vent
    VT 3000-8
17. Ethyl acrylate tank V-515 with vent
    VT 3000-9
18. Styrene tank V-533 with vent
    VT 3000-10
19. Acrylonitrile tank V-511 with vent
    VT-3000-11
20. Vinyl acetate tank V-532 with vent
    VT 3000-12
21. 2-Nitropropane tank V-523 with vent
    VT 3000-15